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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,020	04/11/2001	Nabil Hussein	032391-004	1314

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EXAMINER

SEMUNEGUS, LULIT

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 09/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,020

Applicant(s)

HUSSEINI ET AL.

Examiner

Lulit Semunegus

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-77 is/are pending in the application.
- 4a) Of the above claim(s) is/are withdrawn from consideration.
- 5) ☐ Claim(s) is/are allowed.
- 6) ☒ Claim(s) 59-77 is/are rejected.
- 7) ☐ Claim(s) is/are objected to.
- 8) ☐ Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s)
- 4) ☐ Interview Summary (PTO-413) Paper No(s).
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

1. Applicant's arguments dated July 22, 2002, with respect to claims 59-77 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 59 is rejected under 35 U.S.C. 102(b) as being anticipated by Ballreich et al (4,809,612). Ballreich et al disclose a method of making an ammunition article (abstract), comprising the steps of: injection molding plastic around at least a portion of a projectile (5, 7, 9) to form a plastic cartridge casing body (1), having a first end to which the projectile is attached and a second end (col. 3, lines 24-40 and col. 2, lines 27-29).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 62 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballreich et al (4,809,612). Ballreich et al teach all the limitations of claims 62-63 as

applied to the claims 59 above including a method of securing the projectile by a snap method (10). But Ballreich et al does not expressly teach the step of heat bonding or adhesive bonding the projectile to the cartridge casing body. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to heat bond or adhesive bond the projectile to the cartridge casing body as a further step to the molding since it is well known in the art that any conventional method of securing the projectile can be used to secure the projectile to the casing body as taught in Ballreich et al to ease the separation upon ignition.

5. Claims 60-61 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballreich et al (4,809,612) in view of Scanlon (3,745,924). Ballreich et al teach all the limitations of claims 60-61 and 64 as taught in claim 59 above except a core pull. Scanlon teaches a core pull (36) having a first end (16) to which the projectile is attached and a second end (22), comprising a method of making an ammunition article which includes: a method of molding the plastic (col.4, line 60 until col.5 line 4) around the core pull such that the core pull and the projectile define an interior volume and a step of removing the core pull from the casing (fig. 8); and where the plastic is molded around the portion of the projectile that the plastic enters a recess in the portion of the projectile and forms a flange on the casing extending in the recess (fig. 1). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a core pull into Ballreich et al invention as taught by Scanlon to have an extractable projectile casing and easily interchangeable (Scanlon, col. 1, lines 49-60)

6. Claims 65-77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballreich et al (4,809,612) in view of Boutwell (3,144,827).

As to claims 65-67 and 69-77, Ballreich et al disclose all the limitations of claims 65-67 and 69-77 as applied to claim 59 above, except a base attached to the second end and steps of molding the base from plastic prior to attaching the base to casing and various method of attaching the base to casing. Boutwell teaches an ammunition article comprising: a molded plastic cartridge case body (2, col. 2, line 17) having a closed front-end (6) that reduce in thickness and includes a stress concentrator for tearing of the closed front end (col. 1 line 70 to col. 2, line 6); a second end with a base (1) attached where the base is a molded plastic base (col. 2, lines 18-20) which can be replaceable and is attached mechanically by a locking mechanism (3,5); a primer (9); a propellant charge inside the cartridge casing body (col. 1, lines 68-69); and where the interior volume of the casing includes a first interior portion and a second interior portion where the second interior portion has a smaller diameter than the first interior portion and is separated by a shoulder (fig. 2). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have a molded base attached with the casing instead of a single piece to have an ammunition article which is easy to assembly and which consistently performs satisfactorily (col. 3, lines 7-19); and furthermore it would have obvious to a person of ordinary skill in the art to use different methods of attachment means to the base to the casing body such as screw threads, ultrasonic weld, interference fit, adhesive and heat bond since these methods of attachments are well known in the art.

Claim 68 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ballreich et al (4,809,612) in view of Scanlon (3,745,924) as applied to claim 65-67 and 69-77 above, and further in view of Brunet et al (6,237,494).

Ballreich et al and Boutwell teach the claimed invention as described above in claims 65-67 and 69-77, except for electronic ignition. Brunet et al teach a projectile (15) and a casing (16) with electronic ignition (1) as shown in fig. 4. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use electronic ignition as taught in Brunet et al instead of a primer for igniting the propellant for greater accuracy and consistent ignition.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ringdal (2,862,446) teach a method of making an ammunition case, in particular plastic cases using molding.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (703) 306-5960. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

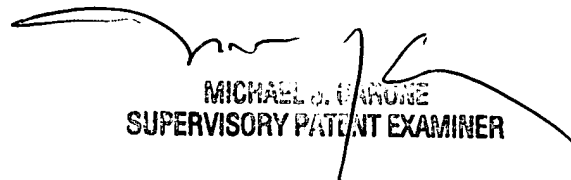
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

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August 28, 2002

Lulit Semunegus
Examiner
Art Unit 3641


MICHAEL J. VARONE
SUPERVISORY PATENT EXAMINER